



# DEQ DEVELOPS NUTRIENT REDUCTION STRATEGY FOR WATER BODIES

Louisiana is known for its vast coastal marshes, rivers and tributaries, swamps, bayous and floodplain bottomlands. Over the years these areas have supported a rich human culture and a wealth of renewable natural resources including seafood, fisheries and forests as well as minerals and other commercial crops and resources. Natural levels of nutrients like nitrogen and phosphorus are carried through rain, groundwater, rivers, streams and tides into Louisiana's estuaries and coastal waters, making them highly productive areas for fish and wildlife. However, in excessive quantities, nutrients can have an adverse effect on ocean habitats and seafood as well as a negative impact on public health, tourism and sustainable development along the coast.

In order to more effectively address nutrient issues throughout Louisiana's water bodies, the Louisiana Department of Environmental Quality is currently developing a Nutrient Reduction Strategy to ensure that these water bodies continue to flourish.

The Louisiana Nutrient Reduction Strategy is composed of a series of steps that follows the Coastal Nutrient Reduction Strategy template developed through the Gulf of Mexico Alliance and the Gulf Hypoxia Action Plan of 2008. The strategy sets forth Louisiana's approach to reducing problematic nutrient concentrations in all state waters, both inland and coastal.

The strategy begins with establishing quantitative targets for priority watersheds in Louisiana. Stakeholders should be involved in this process and appropriate analytical tools should be selected. One key element is to analyze water quality trends and habitat data to ensure effective monitoring programs are designed. Current state and local regulations, programs and policies should be followed throughout the process. Another key element is to identify and implement Best Management Practices (BMPs) in order to solve specific problems identified in priority watersheds. In many cases, economic



*Lake Martin near Lafayette is an example of a nutrient rich water body in Louisiana*



*Wallace Lake south of Shreveport is another example of a nutrient rich lake in Louisiana*

incentives and funding sources may be necessary to achieve full implementation of BMPs. As results of watershed implementation are evaluated, DEQ will communicate with watershed coordinators and stakeholders in order to promote and maintain a viable nutrient reduction plan in those water bodies.

To support this endeavor, DEQ partnered with both state and federal agencies and many other organizations including Louisiana Department of Agriculture and Forestry; Louisiana State University, University of Louisiana at Lafayette; University of Louisiana at Monroe; U.S. Department of Agriculture and Louisiana Office of Coastal Protection and Restoration. Several industries have also taken the initiative to reduce nutrient input to Louisiana's waters. Projects include environmental management campaigns, improved drainage programs and phosphorous discharge reduction plans.

The strategy is also being developed to be compatible with approaches undertaken by the National Hypoxia Task Force, Gulf of Mexico Alliance and Louisiana Coastal Restoration

Master Plan. This is especially vital given the continuing environmental, commercial and economic importance of the Mississippi River and the Mississippi River Delta region.

Louisiana is a charter member and participates in the Mississippi River/Gulf of Mexico Watershed Nutrient Task Force and Gulf of Mexico Alliance. Both programs have identified nutrient reduction as a major environmental component for action. Some principles that outline their mission include encouragement of action that are voluntary, incentive-based, practical and cost effective; utilization of existing programs including existing state and federal regulatory mechanisms; following adaptive management techniques; identifying existing and additional funds needed, along with funding sources; identifying opportunities or potential barriers with regard to innovative and market-based solutions; and providing for measureable results.

To guide its nutrient reduction strategy, Louisiana has adopted these principles along with similar actions and goals.